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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,387	09/05/2003	Scott Howland Baker	HEDUS 002	8539
39170	7590	11/01/2005	EXAMINER	
HITACHI AMERICA, LTD. 50 PROSPECT AVENUE LEGAL DEPT. TARRYTOWN, NY 10591			ROY, SIKHA	
			ART UNIT	PAPER NUMBER
			2879	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/656,387	Applicant(s) BAKER, SCOTT HOWLAND	
	Examiner Sikha Roy	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-7,9-17,19 and 20 is/are rejected.
 7) ☒ Claim(s) 8 and 18 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment, filed on August 18, 2005 has been entered and is acknowledged by the Examiner.

Claim Objections

Claim 16 is objected to because of the following informalities:

Claim 16 line 2 'extending form' should be replaced with --extending from--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,3,5-7,11,12,13 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,904,054 to Hiroshima.

Regarding claim 1 Hiroshima discloses (Figs. 1-3, column 2 lines 26-66) a projection apparatus for coupling a projection lens 13 to a projection optical signal generating device (projection tube) 1 comprising a coupler 12 having an integral frame portion for supporting the projection lens 13 in alignment with the projection signal generating device, the frame portion having a first (12a) and second opening at opposite ends and defining a cooling chamber between the lens and projection tube for

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containing liquid. Hiroshima further discloses the wall of the coupler has contrast ribs (large fins 12d and small fins 12e) extending from the inner wall of the cooling chamber in a direction parallel to the frame's formed first and second openings. The examiner notes here that these solid contrast ribs (fins) extend in both directions, one parallel to the center line of the projection tube and other parallel to the plane of the openings of the frame.

Regarding claim 3 Hiroshima discloses the contrast ribs are triangular in shape.

Regarding claim 5 Hiroshima discloses the contrast ribs are integrally formed in the inner wall of the frame.

Regarding claim 6 Hiroshima discloses (claim 1) the optical signal generating device is a cathode ray tube (projection television receiver).

Regarding claim 7 it is clearly evident from Fig. 1 that the ribs (fins) and troughs cover a surface area greater than 75% of the inner wall's surface area.

Regarding claims 11 and 12, here the Applicant is claiming the product of the apparatus (coupler) with contrast ribs including a method (i.e. a process) of making the ribs, by 'ribs formed during the frame's casting process' (claim 11) and 'ribs formed by machining the frame after the frame is cast' (claim 12) consequently, claims 11 and 12 are considered "product-by-process" claims. In spite of the fact that a product-by-process claim may recite only process limitations, it is the product and not the recited process that is covered by the claim. Further, patentability of a claim to a product does not rest merely on the difference in the method by which the product is made. Rather, is

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the product itself which must be new and not obvious. As such, no patentable weight has been given to the processes recited in claims 11 and 12 (see MPEP 2113).

Regarding claim 13 Hiroshima discloses all the limitations which are same as of claim 1. Furthermore Hiroshima teaches (column 1 lines 58-61) the coupler with plurality of ribs prevents light reflected from the inner surface of the coupler after emerging from the imaged surface of the tube from directly reaching the lens.

Claim 17 recites the same limitations as of claim 7 and hence is rejected for the same reasons (see rejections of claim 7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, 10, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,904,054 to Hiroshima.

Regarding claims 2 and 4, Hiroshima discloses the claimed invention except for the limitation of ribs in the inner walls being rounded (claim 2) or rectangular (claim 4) in shape. It has been held that a change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 357 F. 2d 669, 149 USPQ 47 (CCPA 1966). It would have been obvious to one having ordinary skill in the art to have the ribs

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in rounded or rectangular shape, since such a modification would have involve a mere change in the shape of a component.

Claim 14 recites the same limitation as of claim 2 and hence is rejected for the same reason.

Referring to claim 10 Hiroshima discloses the contrast ribs extending from the frame's inner wall having one set of ribs (12d) having same heights and other set of ribs (12e) having same heights, smaller than the first set. It is well known in the art (as evidenced by U.S. Patent 5,250,968 to Numata) to have the ribs with substantially similar height to provide the similar effect of preventing reflection from all parts of the inner wall. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the ribs of Hiroshima having substantially similar height as is well known in the art for providing the similar effect of preventing reflection from all parts of the inner wall.

Claim 16 essentially recites the same limitation as of claim 10 and hence is rejected for the same reason.

Claims 9, 15 and 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,904,054 to Hiroshima and further in view of U.S. Patent 6,696,776 to Florek.

Regarding claims 9 and 15 Hiroshima does not exemplify the ribs coated with light absorbent material.

Florek in analogous art of cathode ray tube coupler discloses (column 3 lines 40-49) the inside wall surface of the coupler is coated with a non-reflective dark dye or paint (black paint) so that it does not reflect substantial amounts of light from CRT into the projection lens. Florek discloses that this coating thus improves the contrast by reducing reflections from the wall surface.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have the ribs on the inner wall of the coupler of Hiroshima coated with light absorbent material as disclosed by Florek for improves the contrast by reducing reflections from the wall surface.

Regarding claim 19 Hiroshima discloses (column 3 line 64) that the coupler is die-cast but is silent about the frame formed of aluminum alloy.

Florek discloses (column 4 lines 22-25) the coupler made of aluminum alloy. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as matter of obvious design choice. Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to select aluminum alloy for the frame of the coupler since the selection of known materials for a known purpose is within the skill of the art.

Referring to claim 20 Hiroshima discloses the contrast ribs extending from the frame's inner wall having one set of ribs (12d) having same heights and other set of ribs (12e) having same heights, smaller than the first set. It is well known in the art (as evidenced by U.S. Patent 5,250,968 to Numata) to have the ribs with substantially similar height to provide the similar effect of preventing reflection from all parts of the

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inner wall. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the ribs of Hiroshima having substantially similar height as is well known in the art for providing the similar effect of preventing reflection from all parts of the inner wall.

Allowable Subject Matter

Claims 8 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record neither teaches nor renders obvious the coupling apparatus having all the limitations as claimed in claims 8 and 18 and particularly each of the contrast ribs formed in the inner wall of the integral frame portion being continuous around the circumference of the inner wall's surface covered area.

Response to Arguments

Applicant's arguments with respect to claim1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (703) 308-7382.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S.R.

Sikha Roy
Patent Examiner
Art Unit 2879

Karabi Guhaway